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Attorney Docket No. 0670-7088

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Confirmation No. 9290
Taichi MAJIMA	)	Group Art Unit: 2416
Serial No. 10/594,456	)	Examiner: Omar J. Ghowrwal
Filed: September 26, 2006	)	
For: COMMUNICATION METHOD,	)	
TRANSMITTING METHOD AND	)	
APPARATUS, AND RECEIVING	)	
METHOD AND APPARATUS	)	

AMENDMENT

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Official Action dated June 23, 2009, please consider the following amendments and remarks in connection with the above-identified application.

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-10. (Canceled)

11. (Currently Amended) A communication method used in a group call communication in which communication is performed among a plurality of members belonging to a predetermined group, the method comprising the steps of:

at a transmitting end,

encoding and framing the whole of an inputted analog voice signal regardless whether the signal is in an uttered section or an unuttered section to generate frames of voice data;

sequentially inputting frames of the generated voice data ~~to be a transmission object~~, and discriminating ~~whether a voice~~ in a unit of frame which of sonant audio or silent audio is indicated by the inputted voice data ~~is silent~~;

setting a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio;

replacing the voice data which is discriminated that it indicates silent voice with data of identifying the group; and

performing wireless transmission of the replaced data of identifying the group, together with voice data indicating voice and the steal flag, at a transmitting end; and

at a receiving end,

receiving a signal which has been wirelessly transmitted;

discriminating the voice ~~data and~~ data, the data of identifying the group and a content of the steal flag;

determining ~~whether or not~~ how the received signal is to be reproduced, on the basis of the discriminated data of identifying the group and the discriminated content of the steal flag; and

when it is determined that the received signal is to be reproduced, reproducing voice data for voice data sections and reproducing silence for sections of the data of identifying the group.

12. (Previously Presented) The communication method according to claim 11, wherein the transmitting end further comprises a step of forming a transmission frame from the voice data and the replaced data of identifying the group, the step setting a steal flag which shows the presence of the voice data at the time of transmission; and

wherein the receiving end further comprises a step of discriminating the presence of the replaced data of identifying the group on the basis of the steal flag in the received signal.

13. (Currently Amended) A receiving method used in a group call communication in which communication is performed among a plurality of members belonging to a predetermined group, the method comprising the steps of:

receiving by a reception unit a wireless transmitted signal including data of identifying the ~~group and~~ group, voice data of representing voice, and a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio, the data of identifying the group replacing signal voice data indicative of silence;

discriminating by a reception unit the voice ~~data and~~ data, the data of identifying the group and a content of the steal flag in the received signal;

determining by a reception unit ~~whether or not~~ how the received signal is to be reproduced, on the basis of the data of identifying the group and the content of the steal flag; and

when it is determined that the received signal is to be reproduced, reproducing voice data for voice data sections and reproducing silence for sections of the data of identifying the group, by using a reproduction unit.

14. (Currently Amended) A receiving apparatus used in a group call communication system in which communication is performed among a plurality of members belonging to a predetermined group, the apparatus comprising:

reception means for receiving a received signal including data of identifying the ~~group and~~ group, voice data representing voice, and a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio, the data of identifying the group replacing original voice data indicative of silence;

detection means for discriminating the voice ~~data and~~ data, the data of identifying the group and a content of the steal flag in the received signal;

control means for determining ~~whether or not~~ how the received signal is to be reproduced, on the basis of the data of identifying the group and the content of the steal flag; and

reproduction means used when it is determined that the received signal is to be reproduced; for reproducing voice data for voice data sections and for reproducing silence for sections of the data of identifying the group.

15. (Previously Presented) The receiving apparatus according to claim 14, wherein the reception means operates so as to receive a frame signal;

wherein the detection means operates so as to detect predetermined data in a voice signal included in the frame signal;

wherein the reproduction means operates so as to reproduce the voice signal in the frame signal which is received by the reception means, and further to reproduce the predetermined voice when data of identifying the group data is detected by the detection means; and

wherein the control means operates to execute processing based on the data of identifying the group detected by the detection means.

16. (Previously Presented) The receiving apparatus according to claim 15, wherein a predetermined control flag which shows the presence of the data of identifying the group is set in the frame signal; and

wherein the detection means operates so as to detect the data of identifying the group on the basis of the predetermined control flag.

REMARKS

The Official Action mailed June 23, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on September 26, 2006, and May 3, 2007.

Claims 11-16 are pending in the present application, of which claims 11, 13 and 14 are independent. Claims 11, 13 and 14 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 9 of the Official Action rejects claim 11 under 35 U.S.C. § 112, first paragraph, asserting that "[t]he claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention" and is specifically concerned with the terms "uttered" and "unuttered" (page 3, Paper No. 20090618). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

The Applicant respectfully submits that one of ordinary skill in the art, upon review of the present specification, would understand that the meaning of "uttered" and "unuttered" corresponds with "sonant" and "silent," as described throughout the present specification. Therefore, claim 11 contains subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Paragraph 11 of the Official Action rejects claims 11 and 12 as obvious based on the combination of WO 99/27745 to Johnson, U.S. Patent No. 6,427,135 to Miseki and

U.S. Publication No. 2005/0080870 to Marks. Paragraph 12 of the Official Action rejects claims 13-16 as obvious based on the combination of Johnson and Marks. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 11, 13 and 14 have been amended to recite "a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio" and subsequent steps relating to the "steal flag."

Specifically, claim 11 has been amended to recite: "at a transmitting end, ... setting a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio; ... performing wireless transmission of the replaced data of identifying the group, together with voice data indicating voice

and the steal flag, at a transmitting end; and at a receiving end, ... discriminating the voice data, the data of identifying the group and a content of the steal flag; determining how the received signal is to be reproduced, on the basis of the discriminated data of identifying the group and the discriminated content of the steal flag."

These features are supported in the present specification, for example, by page 11, lines 6-26, which are reproduced below:

> When performing specific explanation, in a usual voice transmission state, as shown in Figure 4(B), the frame composer 205 composes a communication frame by setting control data for voice transmission as control data, and setting four (voices 1 to 4) 80-bit voice frames in an actual data unit. In addition, a steal flag SF is set at "0." Each voice frame is supplied from the voice encoder 203.
>
> At the time of a group call start, as shown in Figure 4(C), the frame composer 205 composes a communication frame by setting control data for group call execution as control data, and setting information, required for group call execution such as a group number, in the actual data unit.
>
> The frame composer 205 further steals (replaces) the voice frame which is discriminated by the sonant voice detector 204 at the time of a group call that it is silent, from a group number of the group call in an embodiment to compose a transmission frame. Then, the steal flag is set to "1" when at least one of four voice frames is replaced by a group number.

Also, the features of the amended claims are supported in the present specification, for example, by processing steps S101, S102, S103 and S201 in the flow charts shown in Figures 5 and 6.

Similarly, claim 13 has been amended to recite: "receiving by a reception unit a wireless transmitted signal including data of identifying the group, voice data of representing voice, and a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio, the data of identifying the group replacing signal voice data indicative of silence; discriminating by a reception unit the voice data, the data of identifying the group and a content of the steal flag in the received signal; determining by a reception unit how the received signal is to be

reproduced, on the basis of the data of identifying the group and the content of the steal flag."

Also, claim 14 has been amended to recite: "reception means for receiving a received signal including data of identifying the group, voice data representing voice, and a steal flag of identifying whether or not all of a predetermined number of continuous frames of voice data are sonant audio, the data of identifying the group replacing original voice data indicative of silence; detection means for discriminating the voice data, the data of identifying the group and a content of the steal flag in the received signal; control means for determining how the received signal is to be reproduced, on the basis of the data of identifying the group and the content of the steal flag."

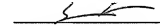
The Applicant respectfully submits that Johnson, Miseki and Marks, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Since Johnson, Miseki and Marks do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789